

REMARKS/ARGUMENTS

1. Summary of Office Action

In the Office action mailed March 12, 2004, the Examiner objected to claims 1, 5, 11-14, 17, and 19-20 because the claims recite one or more of the acronyms AAA, HAAA, PDSN, de-RRQ, and de-RRP in the limitations. The Examiner stated these acronyms should be spelled out at least once in the claim. The Examiner rejected claims 1, 12-13, 17-18, and 20 under 35 U.S.C. §112 for insufficient antecedent basis for at least one limitation in each claim. And the Examiner rejected claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,608,832 (Forslow).

2. Amendments and Pending Claims

Applicants have amended claims 1-2, 5-8, 10-12 and 20 and have cancelled claims 3-4 and 13-19. Applicants have added new claims 21-37. The claim amendments and the new claims do not introduce new matter, as they are supported by the specification. Now pending in this application are claims 1-2, 5-12, and 20-37 of which claims 1, 5, 11, 12, 20, and 26 are independent and the remainder are dependent.

3. Response to Claim Objections

As noted above, the Examiner objected to claims 1, 5, 11-14, 17, and 19-20 because these claims recite one or more acronyms that should be spelled out at least once in the claims reciting the acronyms. Applicants have amended claims 1, 5, 11-12, and 20 to spell out, at least once, the acronyms recited in these claims. Applicants have cancelled claims 13-14, 17, and 19 and thus the objection to these claims is moot.

4. Response to §112 Rejections

As noted above, the Examiner rejected claims 1, 12-13, 17-18, and 20 under 35 U.S.C. §112 for insufficient antecedent basis for some of the recited claim limitations. Applicants have amended claims 1, 8, and 20 to provide proper antecedent basis for the recited claim limitations. Applicants have cancelled claims 13 and 17-18 and thus the rejection to these claims is moot.

5. Response to §102 Rejections

As noted above, the Examiner rejected claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by Forslow. The Applicant respectfully traverses the anticipation rejection of pending claims 1-2, 5-12, and 20 because Forslow does not disclose or suggest each and every element as recited in any of these claims. Applicants have cancelled claims 3-4 and 13-19 and thus the rejection to these claim is moot.

a. The Forslow Reference

Forslow discloses a method for providing common access between a mobile communications network and an external network that provides: (i) selectable packet-switched services via a packet-switched network, and (ii) selectable circuit-switched services via a circuit-switched network. The common access between the mobile and external networks is achieved by a mobile station performing a single common access procedure. After performance of the single common access procedure, the mobile station can communicate with the external network using either the packet-switched network or the circuit switched network. The selection of packet-switched services or circuit-switched services is based on a requested quality of service (QoS) for individual application flows being communicated in the external network.

b. The Claimed Invention

The present invention provides for a simple IP mobile node to operate seamlessly in a mobile IP network with true roaming capabilities. The present invention provides roaming capabilities as a mobile node traverses from a first coverage area to a second coverage area. The first coverage area is supported by a first PDSN and the second coverage area is supported by a second PDSN. While a mobile node is in a first coverage area, the mobile node can communicate with the first PDSN. Then the first PDSN can establish a first registration with a home agent so that data sent from the mobile node to the first PDSN can be forwarded to the home agent from the first PDSN. If the mobile node traverses to the second coverage area, the mobile node can communicate with the second PDSN. Then the second PDSN can establish a second registration with the home agent so that data sent from the mobile node to the second PDSN can be forwarded to the home agent from the second PDSN. The home agent can send data received from both the first PDSN and second PDSN to a single destination device.

The Applicants' independent claims are directed to a method or system for a simple IP mobile node to operate with true roaming capabilities in a mobile IP network. In one respect, an independent claim of the present invention is directed to a method that involves establishing a registration between a home agent and a PDSN and then forwarding data from a mobile node to the home agent via the PDSN. In another respect, independent claims of the present invention are directed to a system and method that involve a proxy server receiving, from an authentication server, an address of a home agent and information that indicates a first methodology for determining a home address of a mobile node and a second methodology for determining an address of a home agent. In yet another respect, an independent claim of the present invention is directed to a system for reclaiming and releasing session resources on a PDSN, proxy server, and

a home agent during traversal of a mobile node from one coverage area to a second coverage area.

With respect to independent claim 1, the Applicants have amended claim 1 to clarify that the method of transmitting data between a mobile node and a home agent comprises: (i) sending the address of a home agent from a proxy server to a PDSN, and (ii) sending a registration message from the PDSN to the home agent in order to establish a registration between the PDSN and the home agent. Applicants submit that Forslow does not disclose or suggest these additional claim limitations and thus Forslow does not suggest or disclose the method of transmitting data between a mobile node and a home agent, as claimed in claim 1.

With respect to independent claims 5 and 11, Forslow does not disclose or suggest a system that forwards data from a mobile node to a home agent via a PDSN. In rejecting claim 5, the Examiner asserted that Forslow's disclosure of a configuration relay agent 120 is a home agent, but in rejecting claim 11, the Examiner asserted that Forslow's disclosure of an internet service provider (ISP) 130 is a home agent. Even if the configuration relay agent 120 or the ISP 130 is a home agent, which Applicants do not concede, Forslow does not disclose or suggest a system for forwarding data from a mobile node to a home agent via a PDSN as claimed by the Applicants in claim 5 or a system for routing data from the mobile node to a home agent via a PDSN as claimed in claim 11.

In particular with respect to claim 5, Forslow does not disclose or suggest a system comprising a PDSN, a proxy server, an authentication server, and a home agent, wherein the authentication server sends the proxy server information indicating a first methodology of determining an address of the home agent and a second methodology of determining a home address of the mobile node, or wherein the proxy server determines the address of the home

agent using the first methodology and determines the home address of the mobile node using the second methodology, or wherein the proxy server sends a home agent address and the home address of the mobile node to the PDSN, as claimed in amended claim 5.

Furthermore, in particular with respect to claim 11, Forslow does not disclose or suggest a system comprising: (i) means for contacting an authentication server and responsively receiving information indicating a first methodology of determining a home address of the mobile node and a second methodology of determining an address of the home agent, or (ii) means for determining at a proxy server the home address of the mobile node, using the information indicating the first methodology, or (iii) means for determining at the proxy server the address of the home agent, using the information indicating the second methodology, or (iv) means for sending the home address of the mobile node and the address of the home agent for the mobile node from the proxy server to a PDSN, as claimed in amended claim 11.

In considering claim 12, the Examiner asserted that Forslow discloses contacting an HAAA server and responsively receiving information indicating a methodology of determining the address of the home agent and determining the address of the home agent. However, the Applicants do not find that the particular sections of Forslow cited by the Examiner or any other part of Forslow discloses or suggests a method that involves (i) contacting an authentication server from a proxy server and responsively receiving information indicating a first methodology of determining a home address of a mobile node and a second methodology of determining a home address of a home agent, or (ii) using the first methodology at the proxy server to determine the home address of the mobile node and using the second methodology at the proxy server to determine the address of the home agent, or (iii) sending the home address of the

mobile node and the address of the home agent from the proxy server to a PDSN, as claimed in the amended claim 12.

With respect to independent claim 20, Forslow does not disclose or suggest a system for reclaiming and releasing session resources after a mobile node has moved from one packet data serving area to another. In rejecting claim 20, the Examiner asserted that Forslow discloses requesting a reclamation of resources, upon detection of traversal of the mobile node for a circuit switched application (a first coverage area) to a packet switched application (a second coverage area). However, the Applicants do not find that the particular sections of Forslow cited by the Examiner or any other part of Forslow discloses or suggests a system claimed in claim 20. In particular, Forslow does not disclose or suggest a system having (i) means for requesting a reclamation of resources upon detection of traversal of a mobile node from a first coverage area to a second coverage area, or (ii) means for releasing resources allocated to a PDSN session from the home agent in response to the home agent receiving a de-registration message from the PDSN, as claimed in claim 20. At best, Forslow discloses mapping an individual application flow to one of a circuit-switched network and a packet-switched network bearer depending on the quality of service requested for the individual application flow. (See e.g. Forslow, Abstract). Although Forslow discloses mapping an application flow between two networks based on a quality of service request, Forslow does not disclose moving or detecting the movement of a mobile node from one packet data serving area to another or reclaiming and releasing session resources after the mobile node has moved from one packet data serving area to another.

Because Forslow does not teach or suggest each and every element of independent claims 1, 5, 11, 12, and 20, Forslow fails to anticipate claims 1, 5, 11, 12, and 20 under 35 U.S.C.

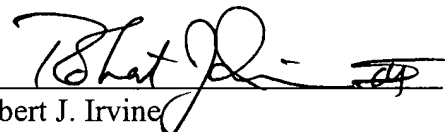
§102(e). Further, because each of claims 2 and 6-10 depend from either claim 1 or claim 5, Forslow necessarily fails to anticipate claims 2 and 6-10 as well.

5. Conclusion

In view of the above amendments, remarks and arguments, the Applicants respectfully submit that claims 1-2, 5-12, and 21-37 are now in a condition for allowance, and respectfully request favorable reconsideration and allowance of the claims. If the Examiner would like to discuss this case, the Examiner is welcomed to contact the undersigned at (312) 913-3305.

Respectfully submitted,

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